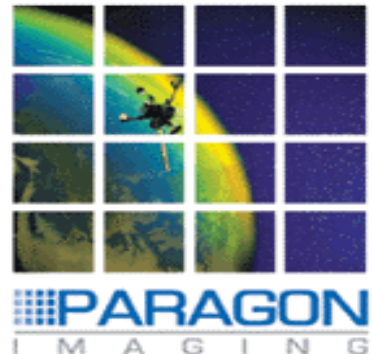# Paragon Imaging
JPEG 2000 Implementation

for: NIMA/NTB - Image Compression Symposium II

presented by: Mr. Jack Connors
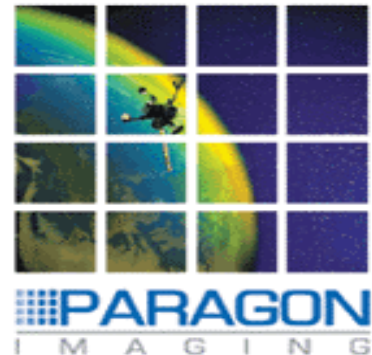
dates: June 2-4, 2003

NITF/NSIF JPEG 2000 Supported

- Paragon has completed development and will release NITF/NSIF JPEG 2000 implementation with the following products in Q4 of 2003:
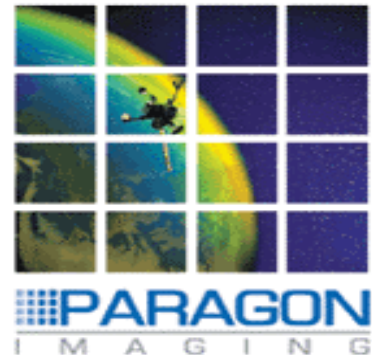
The ELT Series

- ELT/5500 Pro (classified)
- ELT/5500
- ELT/3500
- ELT/1500

Paragon's JPEG 2000 Support

- Read NITF/NSIF files with embedded JPEG 2000 (JP2 and JPC)

- Write NITF/NSIF files with embedded JPEG 2000 images (JP2)

- Read/Write NITF J2KLRA tags
  - The ELT Series shall use the "20 layer strategy"
  - The ELT Series shall always write a valid JPEG J2LRA tag
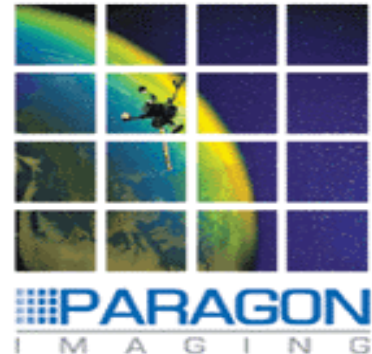
Paragon's JPEG 2000 Support...

- Read/Write NITF/NSIF multispectral images with band imaging

- Read/Write support for up to 16 bits per pixel per band

- Write tiled images (1K by 1K tile size*)
  - Works well for both small and large images

- Write using either lossless or lossy compression

Paragon's JPEG 2000 Support...

- Write up to 20 layers using bit rates defined in the NITF JPEG 2000 specification:

  - Min = 20 layers (5.7 bpppb) lossless
  - Low = 19 layers (4.6 bpppb) visually lossless
  - Medium = 15 layers (2.0 bpppb)
  - High = 10 layers (1.0 bpppb)
  - Max = 5 layers (0.5 bpppb)

Paragon's JPEG 2000 Support…

- Read standalone JPEG 2000 and JPEG 2000 compressed files

- Write standalone JPEG 2000 files
  - Maximum 3 bands and 8 bpppb

Questions…